

DOCUMENT RESUME

ED 236 859

EC 160 879

AUTHOR Enell, Nancy C.
TITLE How to Streamline Your IEP: A Special Education Handbook on Computer-Assisted Individualized Education Programs.
INSTITUTION San Juan Unified School District, Carmichael, Calif.
SPONS AGENCY California State Dept. of Education, Sacramento. Div. of Special Education.
PUB DATE Jul 83
GRANT 34-3651-67447-01-82
NOTE 38p.; For a related document, see EC 160 882. Cover title is Computer-Assisted IEPs.
AVAILABLE FROM Jan Juan Unified School District, Attention: Dr. Nancy C. Enell, Research and Evaluation Department, P.O. Box 477, Carmichael, CA 95608. (\$2.00).
PUB TYPE Guides - Non-Classroom Use (055)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Computer Managed Instruction; Computer Programs; *Disabilities; Elementary Secondary Education; *Individualized Education Programs; *Microcomputers; Recordkeeping

ABSTRACT

Intended for special education directors responsible for managing preparation of individualized education programs (IEPs), the booklet suggests ways to streamline the IEP process by using computers. An initial chapter suggests ways to reduce the IEP paperwork, such as preselecting goal areas and proposed objectives in advance of the IEP meeting. Advantages and disadvantages of using a computer are cited. The second chapter defines a computer system and outlines preparations for installing one. Chapter 3 focuses on selection criteria for computer programs, discusses cost factors, and suggests possibilities for modifying existing programs as well as developing new ones. Among equipment considerations noted in chapter 4 are lack of money, existence of a computerized management information system, and compatibility with other hardware. Operational suggestions in chapter 5 address issues of confidentiality and management reports. The final chapter presents questions to consider in streamlining the process. (CL)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED236859

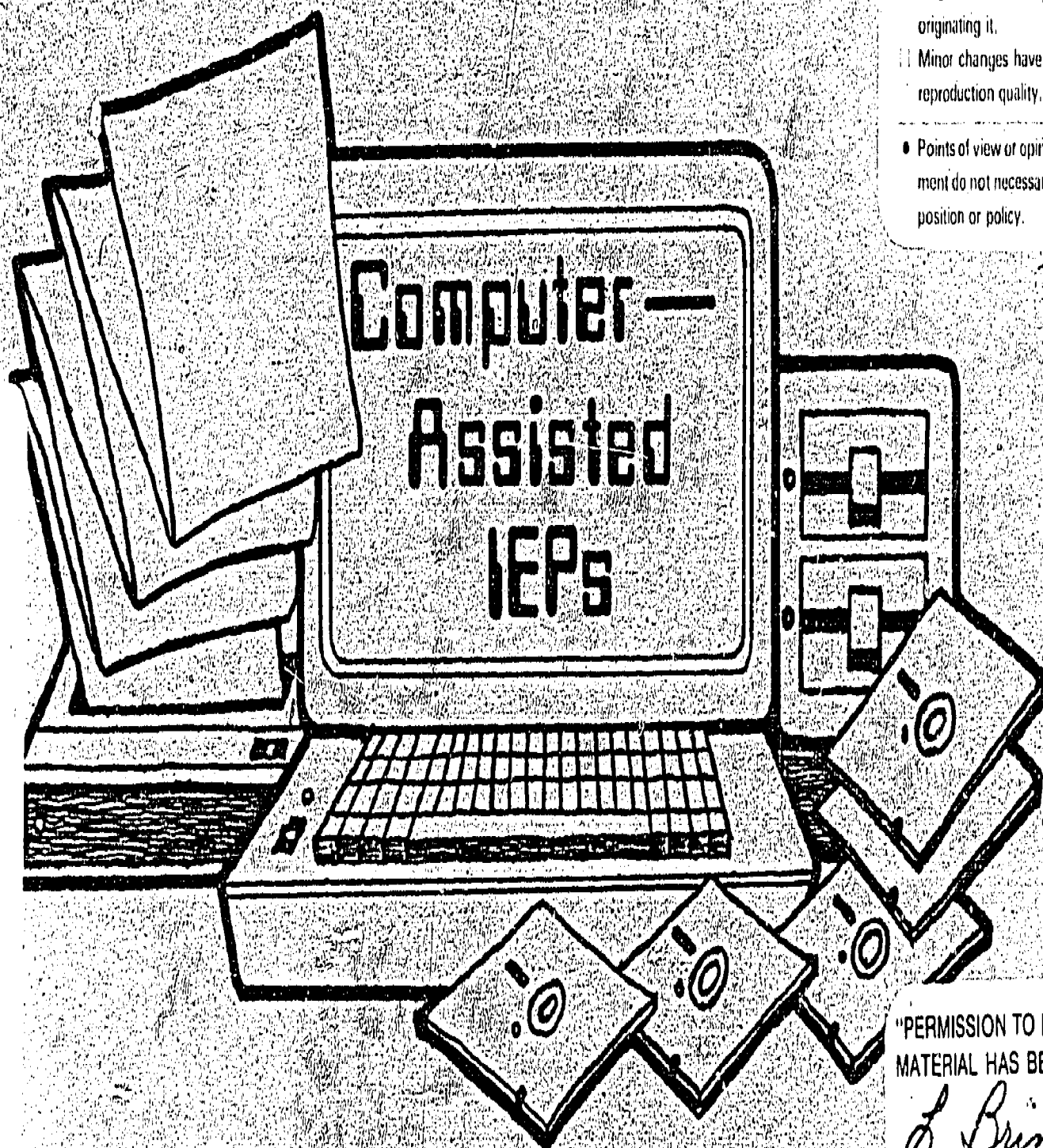
EC160879

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

✓ This document has been reproduced as
received from the person or organization
originating it.

Minor changes have been made to improve
reproduction quality.

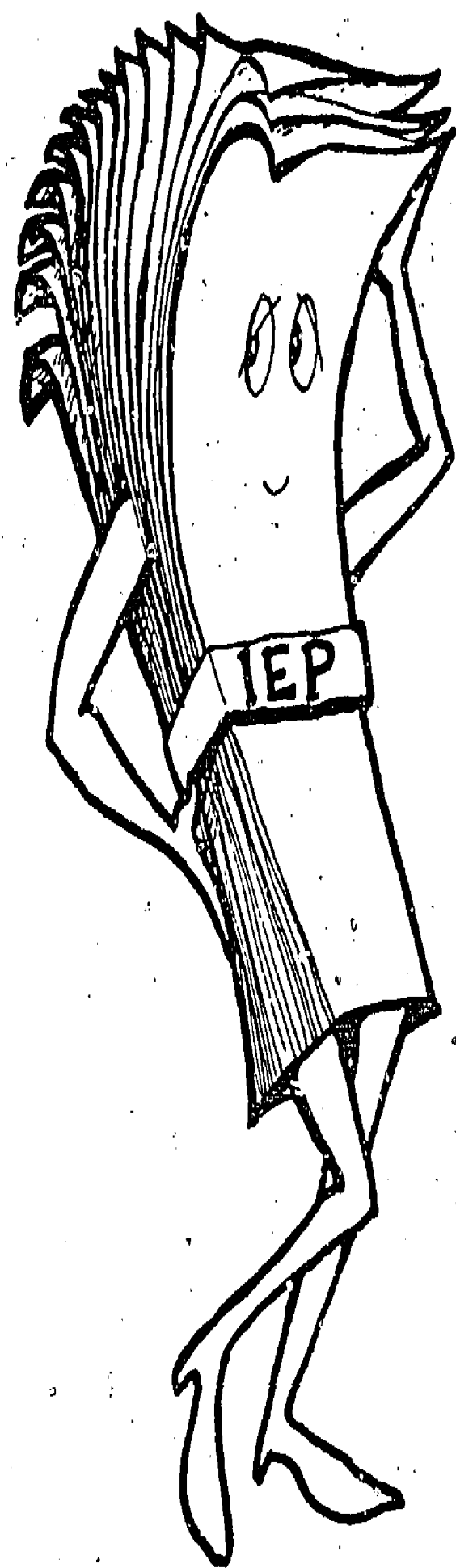
• Points of view or opinions stated in this docu-
ment do not necessarily represent official NIE
position or policy.



"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

L. Brinegar

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."



How To Streamline Your IEP:

A Special Education Handbook On Computer-Assisted Individualized Education Programs

By Nancy C. Enell, Ph.D.
San Juan Unified School District
Carmichael, California

Illustrated By
Jack Cooper

Copyright © July, 1983 by SJUSD

This guide was developed under a grant
(#34-3651-67447-01-82)
from the California State Department of Education
Office of Special Education
to the San Juan Unified School District

The contents of this publication do not necessarily reflect
the views or policies of the California State Department of Education,
or the San Juan Unified School District, nor does mention of
any trade names, commercial products or education agencies
imply endorsement by the State or District.

SAN JUAN UNIFIED SCHOOL DISTRICT

BOARD OF EDUCATION

Barbara Farley, President
Bruce M. Mangerich, Vice President
Kathy Munoz, Clerk
Janice Garfinkle, Member
Stan Nielsen, Member

ADMINISTRATION

Fred J. Stewart, Superintendent
Hona C. Sell, Deputy Superintendent
Joseph R. Ferreira, Assistant Superintendent, Special Services
Phillip W. Oakes, Director, Research & Evaluation
Ralph Richardson, Director, Special Education

INTRODUCTION

This guide has been prepared for the special education director who is responsible for managing the preparation of Individualized Education Programs (IEPs). As we enter an age of computer technology, teachers are wondering how--and if--computers can remove some of the burden of IEP paperwork. This IEP burden, whether measured in time or in pages, has been documented as a continuing problem for special education teachers. Can computers ease the burden? The suggestions in this guide may help special education administrators streamline the IEP process--with or without computer assistance.

This guide was developed as the product of two studies funded by the State of California--the first on IEP paperwork, and the second on the feasibility of using computers in the IEP process. The writer of the guide owes much to the many special education directors throughout California who spent time and effort assisting in the two research studies, and to Dr. Stanley Barrick, principal investigator for both studies.

Nancy C. Enell
Project Director

C O N T E N T S

Page

Introduction

i

Contents

ii

Section 1: Background for IEP Improvement and the Use of Computers

1

How can you streamline the IEP documentation?

2

How can you streamline the IEP process?

3

Are there benefits from using computers in the IEP process?

4

Are there disadvantages to using computers in the IEP process?

5

What attitudes do parents and teachers have about computerized IEPs?

6

Section 2: Preparation for Using Computers to Produce IEPs

7

What types of IEP programs are available?

8

What is a computer system?

9

Which comes first--the equipment or the program?

10

What kinds of computer equipment are available?

11

What preparation is required before installing a system?

12

<u>Section 3: Program Considerations</u>	13
What should you consider when selecting computer programs for IEPs?	14
What are the costs for IEP programs?	15
How can you modify existing computer programs?	16
What about developing your own unique program?	17
<u>Section 4: Equipment Considerations</u>	18
What if you have...	
... little or no money available?	19
... an IEP objectives listing?	20
... only a computerized management information system?	21
... lots of different microcomputers, and no mainframe computer?	22
... many microcomputers and a mainframe computer?	23
<u>Section 5: Operating a Computer-Assisted IEP System</u>	24
What must you consider to maintain a computer system?	25
What should you do when a new system is first installed?	26
How can you develop management reports?	27
How can student information be kept confidential?	28
<u>Section 6: Further Information</u>	29
What questions should you ask about your IEP?	30
Where can you get further information about computer-assisted IEPs?	31

SECTION 1:

BACKGROUND FOR IEP IMPROVEMENT AND THE USE OF COMPUTERS

OR

REDUCING THE
PAPERWORK

BURDEN



The paperwork burden for the special education teacher, whether measured in time or pages, is a recognized problem. When trying to reduce this burden, it is important to involve teachers in form revision. They can provide ideas for ways to improve and speed the use of the IEP forms.

How can you
streamline the
IEP documentation?

Because of the general reluctance toward change, however, major changes in the IEP format should be infrequent. When changes are required, maintaining some parts of the previous format makes the adjustment easier for teachers.

As much information as possible on the IEP form should be designed for guided completion--boxes to check, side headings to identify needed information, or phrases requiring only a few words for completion. Be sure all areas of required IEP content are clearly identified.

Teachers find that lists of objectives arranged by specific skill area and in developmental sequence are helpful when they need to prepare IEPs. Such lists stimulate teachers to consider using objectives which might not readily come to mind during the IEP meeting itself, and to write more explicit objectives.

How can you
streamline the
IEP process?

Parents who are new to special education can find their initial IEP team meeting very confusing and overwhelming. It is easier for parents to understand what is happening when teachers explain in advance the IEP meeting process and the staff who will be involved. Some of the words that may be used in the IEP itself frequently require an explanation for parents, as information is often abbreviated and acronyms are used which are unknown to parents.

Assessment teams can discuss findings prior to the IEP meetings as a way of making the process move more easily. When placement outside a single district needs to be considered, invite the appropriate staff to attend and have just one meeting to complete the placement and the IEP. This can eliminate the need for a second meeting.

IEP meetings proceed faster when teachers pre-select goal areas and proposed objectives in advance. This common practice is accepted by parents as long as it is emphasized that the objectives are only proposed, and that they can be changed and that others can be added.

Districts using computers to help complete the IEP report a number of benefits. A major finding of the California research study is that teacher time, and thus cost, for annual review meetings is shortened by nearly 30 minutes per student when computers are used.

Are there benefits from using computers in the IEP process?

Other benefits for teachers and parents include the production of clear, legible IEP copies. When an IEP can be easily read, its use as a reference increases.

Program managers find that more required information is included, that more objectives are written, and that there is more uniformity of meaning for both objectives and for other IEP information when computers are used. The computer-assisted proposed IEP can comply with legal mandates.

Information used in computer-assisted IEPs is available for program management and reporting purposes. This information can be helpful in conducting research and in program evaluation.

Parents and teachers encourage the use of computers for the IEP. They believe the schools should remain current with new technology.

Are there disadvantages to using computers in the IEP process?

Disadvantages reported by a minority of study respondents are reported as cost, time, and the impersonal nature of computers.

Computer expenses for equipment installation and maintenance, programs, and data entry can be a concern for some directors.

Teachers find that they must complete information on students, testing, and objectives prior to meetings so that the proposed IEP can be printed. In some cases teachers must review lists of objectives prior to the meeting to select those which they include in the proposed IEP.

A small minority of parents and teachers find that the content of the "computer-assisted IEP seems to be "canned" and less descriptive than in a hand-written IEP. A few believe that a computer-assisted IEP is much less personal.

Using computers requires staff time for training in use of the computer system. Data entry, staff require training, and sometimes re-assignment to data entry positions.

Parents do not want to see the education system fall "behind the times" in using computers. They report increasing acceptance for the use of computers in all parts of life and some report having computers at home.

What attitudes do parents and teachers have about computer-assisted IEPs?

Parents believe that it is a good thing to use computers to assist with IEPs if it frees teachers to spend more time on instruction for their children, rather than on paperwork.

Teachers who use computer-assisted IEPs report ~~that~~ they do less paperwork--and, the time required for preparing and conducting annual review meetings shows that about 30 minutes is saved by these teachers for each student. This is seen as a major advantage.

Teachers also report that they think about more options when they are selecting objectives for a proposed IEP, and that the quality of the objectives seems to be better. They also report that the content and format of the IEP is better--more complete and readable--when it is produced by a computer.

SECTION 2:

PREPARATION FOR

USING COMPUTERS

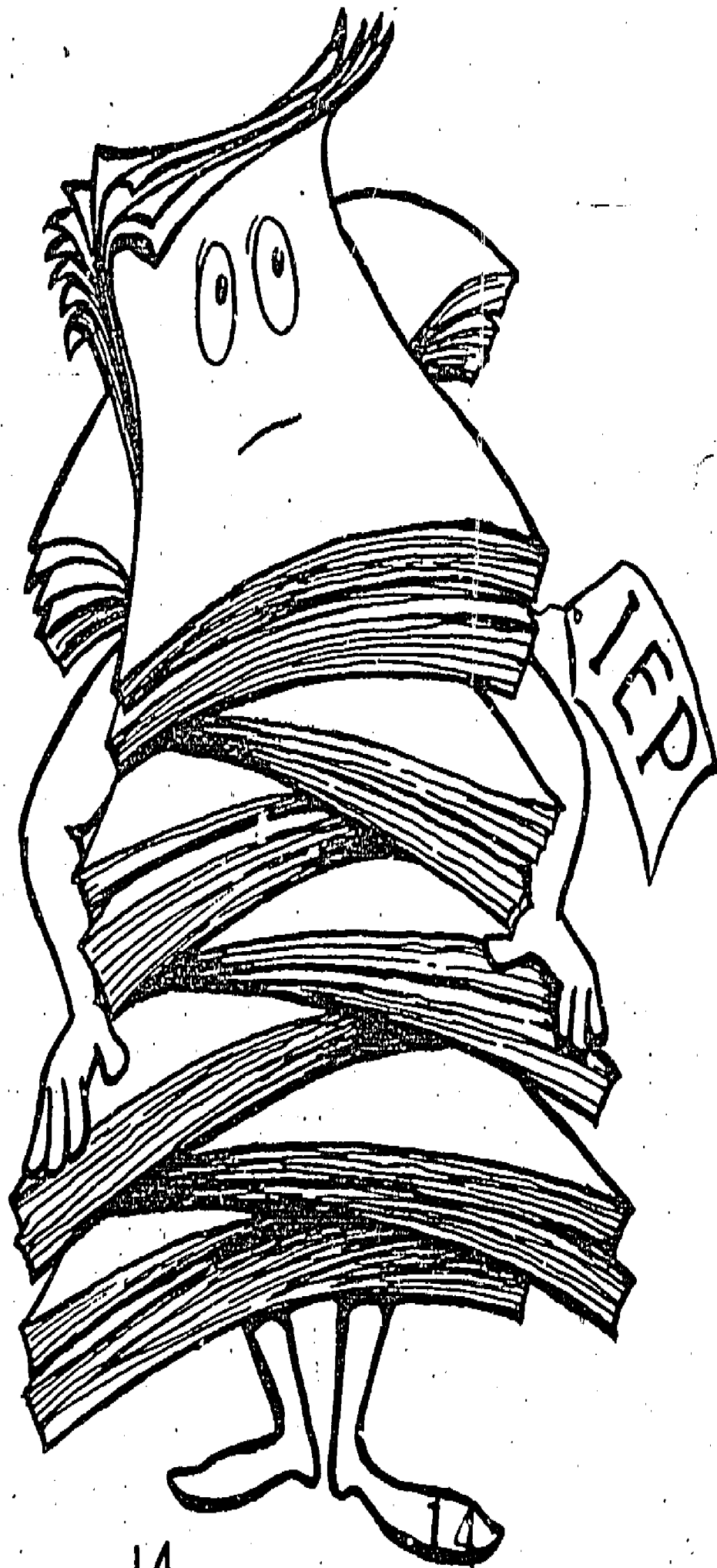
TO PRODUCE IEPs

OR

WHERE

DO I

START?



A number of programs have been developed by educational agencies and commercial vendors to produce different types of IEP information. Some prepare just the administrative data about a student to use as the first part of the IEP (or the "facesheet"). Others print lists of proposed objectives that are teacher-selected or are selected on the basis of assessment information provided for the computer.

What types of IEP programs are available?

Most program managers will want programs that will combine both of these functions plus the ability to manage administrative information and to print a number of management reports. Unfortunately, not every IEP program will cover all of these functions, so managers must review a number of programs and select the one that will include the greatest number of desired features (for the equipment available and at a reasonable price, too).

Selecting an IEP program needs consideration by various staff groups so that the program will meet a variety of program and service needs--not just those of one student group. More information on selecting IEP programs is given in Section 3, pages 13 to 17.

What is a computer system?

A computer system is used to process information. It includes both the equipment (the "hardware") and the program directions (the "software"). Put together, a computer system will be limited by the kind of hardware and software used. Systems can take coded information prepared by teachers and use it to produce and print an IEP which includes complete phrases and sentences of information instead of the codes recorded by the teacher. Thus, it can reduce the amount of actual writing time.

Computer systems also have the ability to "read" information in a number of ways. Some can get information from cards or sheets of paper which contain special marks and which can be read by a scanner. Others are linked by telephone to a terminal (it looks like a combination typewriter keyboard and television screen). Information entered at the terminal can be sent by a phone line to a computer.

Some computer systems, such as microcomputers, can stand alone--they can save the typed information in their own memory, are attached to a printer, and, upon request, can produce a report.

Many special education program managers do not face this dilemma, as they already have some type of computer equipment available to them in their school district. For them, it becomes a question of how to locate appropriate programs to match their equipment. This question will be discussed on the next page.

Which comes first--
the equipment or the
program?

If you are considering the purchase of a complete system (equipment and software), most experts would advise checking out the programs first. The reason for this is that you need to determine just what you want the system to do before you will know what types of equipment can satisfy your wants.

Another reason for considering programs first is that not all programs will operate on all types of equipment. Even though the computer will be more expensive than the program, you will not be able to use the computer until the programs are available.

Managers need to consider several alternatives in terms of programs and equipment in order to find the combination which will provide the best system for their use at the least expense.

What kinds of computer equipment are available?

At this time, computers are divided into three types: mainframe, mini- and microcomputers. For most purposes, the mainframe and minicomputer differ little in operation; mainframes have more memory storage and operate somewhat faster. The microcomputers are considerably smaller, slower, and have less storage than the other two; this disadvantage is offset, however, by their reduced price.

Additional equipment which may be required includes printers, additional storage (hard disks for microcomputers), and telephone connections (modems).

Computers of different brands may also differ in their ability to understand different program directions. It is essential that you determine that the computer and the program "speak the same language" and have the same operating requirements. For example, floppy disks containing information produced by one type of microcomputer may not be "read" by a different type of microcomputer. Similarly, mainframe programs written in Cobol (a common computer language) may not work on different types of computers without program modifications.

Hopefully, before any contracts are signed for a computer system, the director will have become familiar with a variety of computer systems for producing IEPs. Whenever possible, different systems should be piloted by other special education staff.

What preparation is required for installing a system?

All staff will need training related to any IEP system, whether manual or computer-assisted. This training needs to cover both professional staff and the support staff who may be working with the IEP forms and even assist in the data entry.

Manuals or guides should be prepared for both the professional staff and for the data entry staff. A good guide provides samples of completed forms as well as descriptive information. Whenever possible, the form should be linked to the descriptive information and any codes need to be carefully described.

Special information should be prepared for parents who may be receiving a computer-assisted IEP for the first time. This last step is especially important if some IEP information is given in abbreviated form.

SECTION 3:

PROGRAM

CONSIDERATIONS

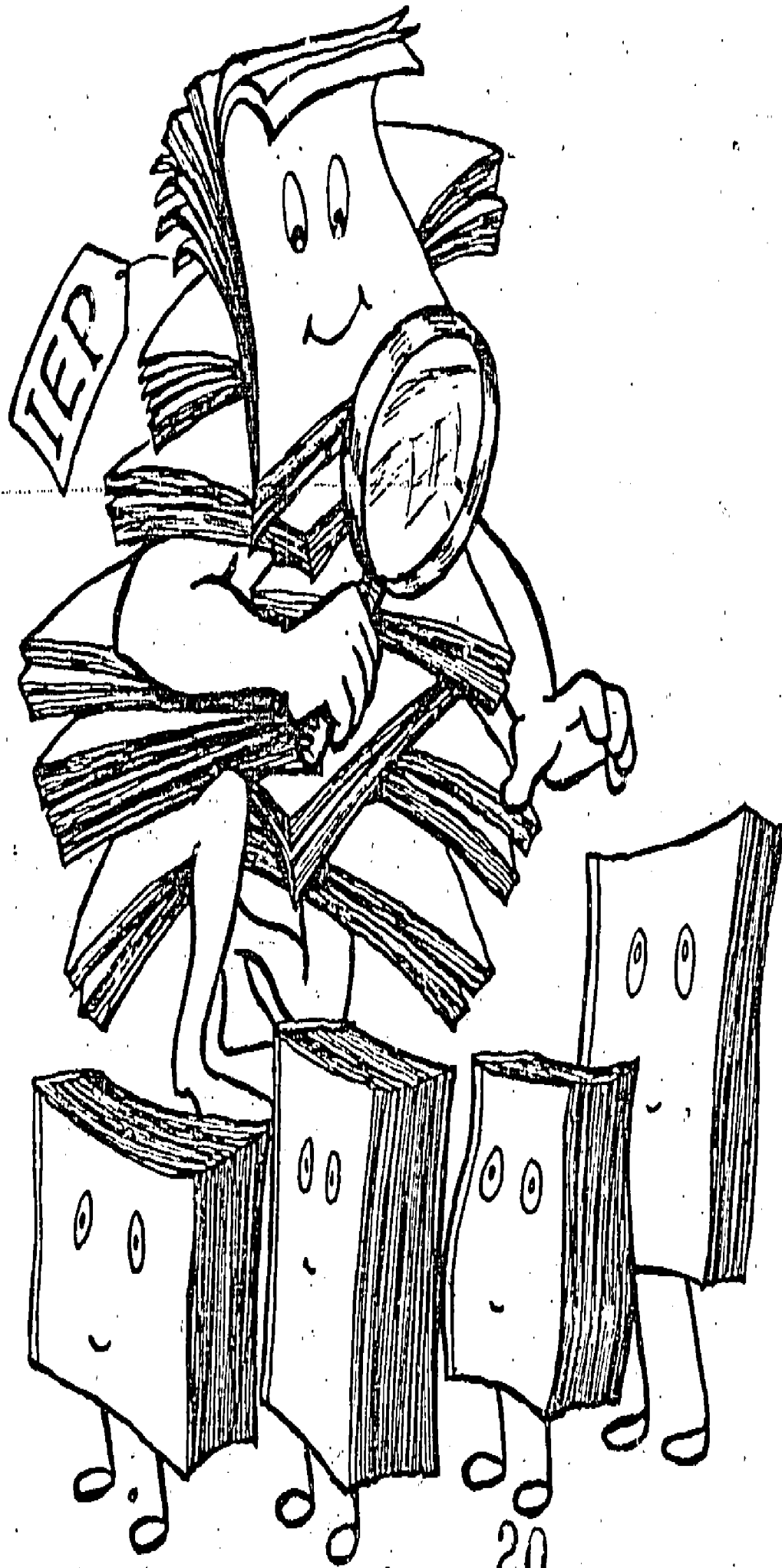
OF

FINDING

THE BEST

IEP

PROGRAM



Based upon the information received from a number of writers of "IEP" programs, there is no uniform understanding of what an IEP is. Some IEP programs provide primarily administrative data--commonly referred to as an IEP "facesheet." These programs can help both teacher and manager by providing some information and reducing some of the paperwork burden, but they are not complete IEPs.

What should you consider when selecting computer programs for IEPs?

Other programs contain only instructional objectives and none of the other student information which is considered part of the IEP. Some of these objective programs, however, are also tied to instructional materials and procedures, and may be helpful to teachers for these reasons.

Still other programs provide both student data and objectives, but differ in how the objectives are selected. In some, the teacher identifies the objectives to be listed; in others, assessment scores or test answer sheets are used as input and the program selects the appropriate objectives.

Apart from the type of information included in the IEP, the legal requirements from State and Federal regulations must be considered.

What are the costs for IEP programs?

The costs for IEP programs vary with the type of computer equipment used, and with the amount of information included in the IEP.

Microcomputer programs to produce an IEP facesheet and to store and retrieve administrative data range in cost from \$199 to \$5,000. Programs for complete IEPs range from \$595 to \$6,000.

IEP programs for mainframe equipment tend to be more expensive although they will usually include the ability to produce administrative reports as well as more complete IEPs. Mainframe programs for partial or full IEPs cost from \$3,000 to \$12,000. School districts developing their own mainframe computer programs for IEPs report using between four months and one year of programmer time--at an estimated cost of from \$6,000 to \$18,000.

Another way of having access to computer programs is through a contract with a service bureau. This company will use its computer and IEP programs to produce specified reports. The costs for such service are usually based upon a minimum fee plus an amount for each student carried by the system.

How can you modify
an existing computer
program?

Modifications to alter a program's application or to accommodate different equipment may be done with great difficulty and usually at substantial cost. Programs written for specific equipment use certain operating instructions. These instructions differ for different types of equipment.

If the program is developed by a commercial vendor, the vendor may agree to make changes--at your expense. Only if enough users desire certain changes will they be made at no cost by the manufacturer.

Programs written for microcomputers may be available for different types of equipment, but they are usually "locked" so that you cannot tamper with them, or even get a listing of the program directions.

Before purchasing any program, you should be sure that it will produce the IEP in the way that you want it, or that you can make changes in the program itself. Again, modifications to computer programs may be expensive.

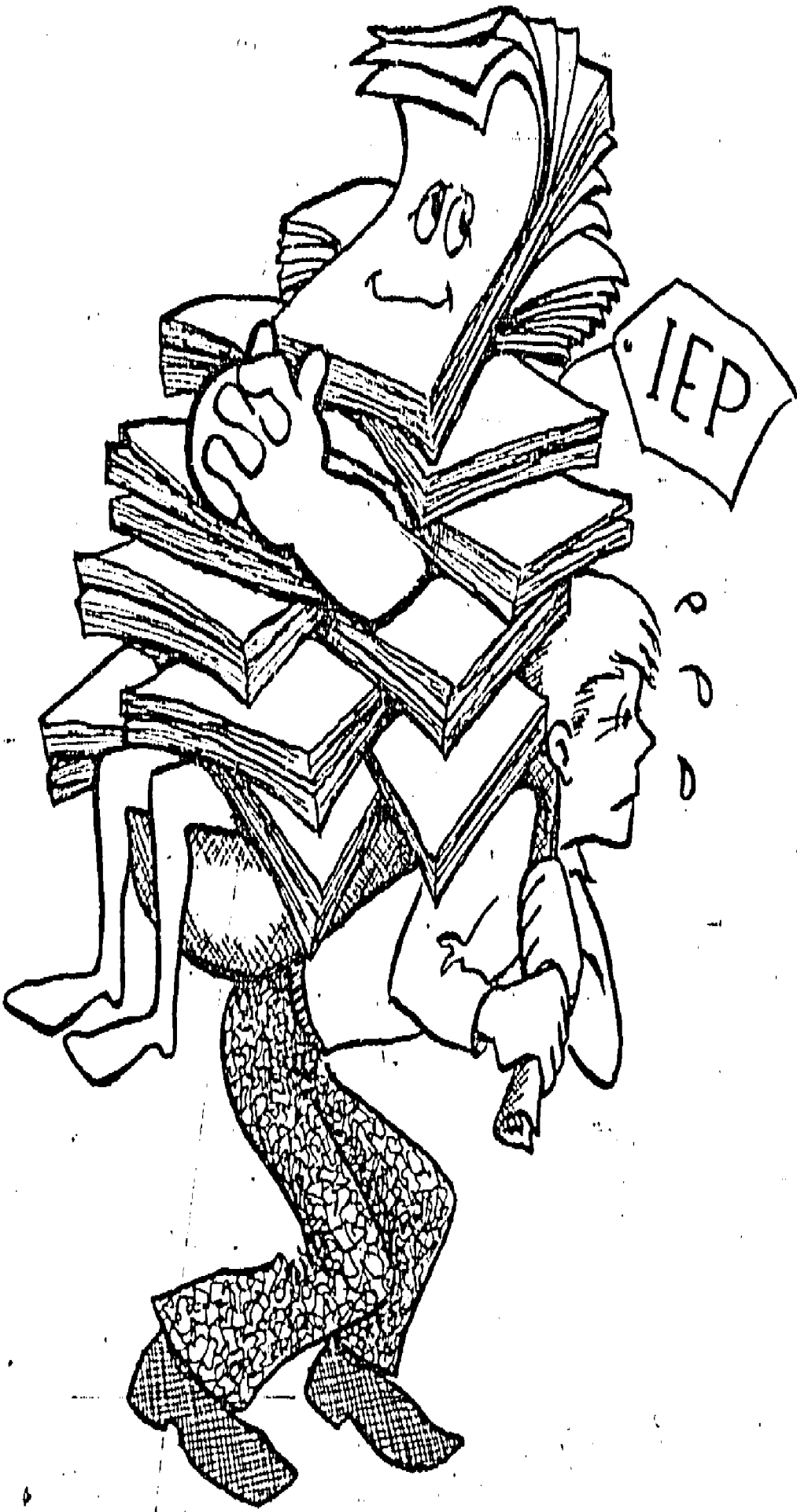
What about developing your own unique programs?

Before attempting to develop a complete IEP computer program, be sure that you have seen enough programs in operation that you are willing to put in the time and effort required for a unique program.

Many books could be written about the problems faced by those who thought developing a unique system was the best answer. Frequently these programs do not include all the information after development that they were originally planned to have. The cost involved may be substantial, communication problems may develop between special education and data processing staff, and it may be several years before the system has all the "bugs" worked out. Writing programs is almost always more expensive than buying a developed program.

Programming for simple needs, such as producing the IEP facesheet, can be done with data base management programs which are available for microcomputers. Some of these programs have been used by special education managers with great success.

Given the number of programs now available, the cost of developing a unique, single user program may be prohibitive.



SECTION 4:

EQUIPMENT

CONSIDERATIONS

OR

HANDLING

THE BURDEN

WITH WHAT

YOU HAVE

What if you have...
...little or no money
available?

First, consider whether your existing manual IEP system can be simplified. Providing adequate sections and headings on your forms for necessary information helps to insure that it is included in the writeup. Wherever possible, include descriptive information with lines or boxes to check to minimize teacher writing time.

Second, begin learning as much about computers and their operation as your time and resources allow. The more "computer literate" you are, the easier it will be to compare computer equipment and programs and to determine what you want in your system.

Third, begin investigating available programs for producing IEPs. Get samples of manuals and the actual IEPs produced. Talk with others who have computer IEP systems.

Fourth, consider whether you might want to list IEP objectives with your IEP program. If so, borrow or develop your own listing (see next page) and let teachers use it to select the objectives for handwritten IEPs.

Whether computerized or not, a listing of objectives is a great help for teachers. Such lists help teachers to consider a wider variety of objectives for use in student IEPs, and to be aware of the sequential development of skills. Managers find that all IEP objectives are written better because teachers pattern them after the objectives in the lists.

What if you have...
...an IEP objectives
listing?

If you have your objectives contained in a computerized system, it is possible for teachers to identify objectives through a remote terminal or a microcomputer, using code numbers or other identifiers. Other systems "read" the objective codes from mark sense cards or scan sheets. Once identified, the selections are printed for teacher use in an IEP meeting as proposed objectives.

When these objectives are linked to a larger computer system with other student and administrative information, a more complete IEP can be produced, not just the objectives section. It is possible to use computerized objective information to monitor skill areas being taught, and to determine future instructional needs.

**What if you have...
...only a
computerized
management
information
system?**

A computerized management information system provides a good base for developing an IEP facesheet. Probably most of the information you now capture for your administrative use can be presented on the IEP facesheet. The use of a computer-printed facesheet saves teacher time and effort--especially at the annual review meetings. Showing printed information on a form is also a good way to catch any errors.

Agencies using management information systems to print IEP facesheets frequently have the form professionally designed to meet agency needs. Printed forms can present explanatory information in special type, use shaded boxes or special markings. The separate copies of the multipart form can be printed with special information, and parent rights may be included on the reverse side.

Other agencies design their own forms and have all information printed by the computer itself. These IEP forms can be printed on multi-part paper, with or without carbon, according to the printer specifications.

One of the problems of having many different microcomputers is being able to use programs written for one microcomputer operating system on other microcomputers. Although this problem may be less serious at a future time, it presents a real problem now.

What if you have...
...lots of different
microcomputers
and no mainframe
computer?

In some cases, directors choose to get programs only for the most popular computer. This is fine if programs for that computer are the preferred programs. In other cases programs are purchased only for one or a few microcomputers, and processing is handled centrally or at a few locations. Each location will need to have a printer. Some microcomputer programs, however, are available for more than one type of computer.

Programs should be selected to provide the types of IEP reports that are most needed. If administrative reports are desired, processing should be done at one location, and a hard disk drive should be used to provide greater storage capability.

If teachers are doing their own data entry, they may want just an objectives system--or a complete IEP program. Distribution systems can be set up between schools and a central office to share information (see next page).

What if you have...
...many microcom-
puters and a
mainframe?

After you determine the priority that special education has among your agency's computer-users, you can better judge how you might be able to become a user. If schools already are linked with a mainframe computer, this same link may be available to you before or after school hours.

Links can be established between terminals (or microcomputers) and mainframe computers in several ways. First, terminals may be "hard-wired" into the main computer, eliminating the need for telephone connections. Second, there may be a network using telephone links with a device termed a "modem" connecting micros or terminals with the main computer. Third, there may a distribution system in which information is exchanged by sending copies of the microcomputer information disks to a central office where information is taken from the disk and stored in the mainframe computer.

Each of these systems has some drawbacks. The first is only practical over short distances, the second should have a dedicated phone line and will accumulate phone charges while in use, and the third could have delays or disks may be lost. Investigate costs and possible problems before deciding upon any one of these linking systems.

SECTION 5:

OPERATING

AN IEP

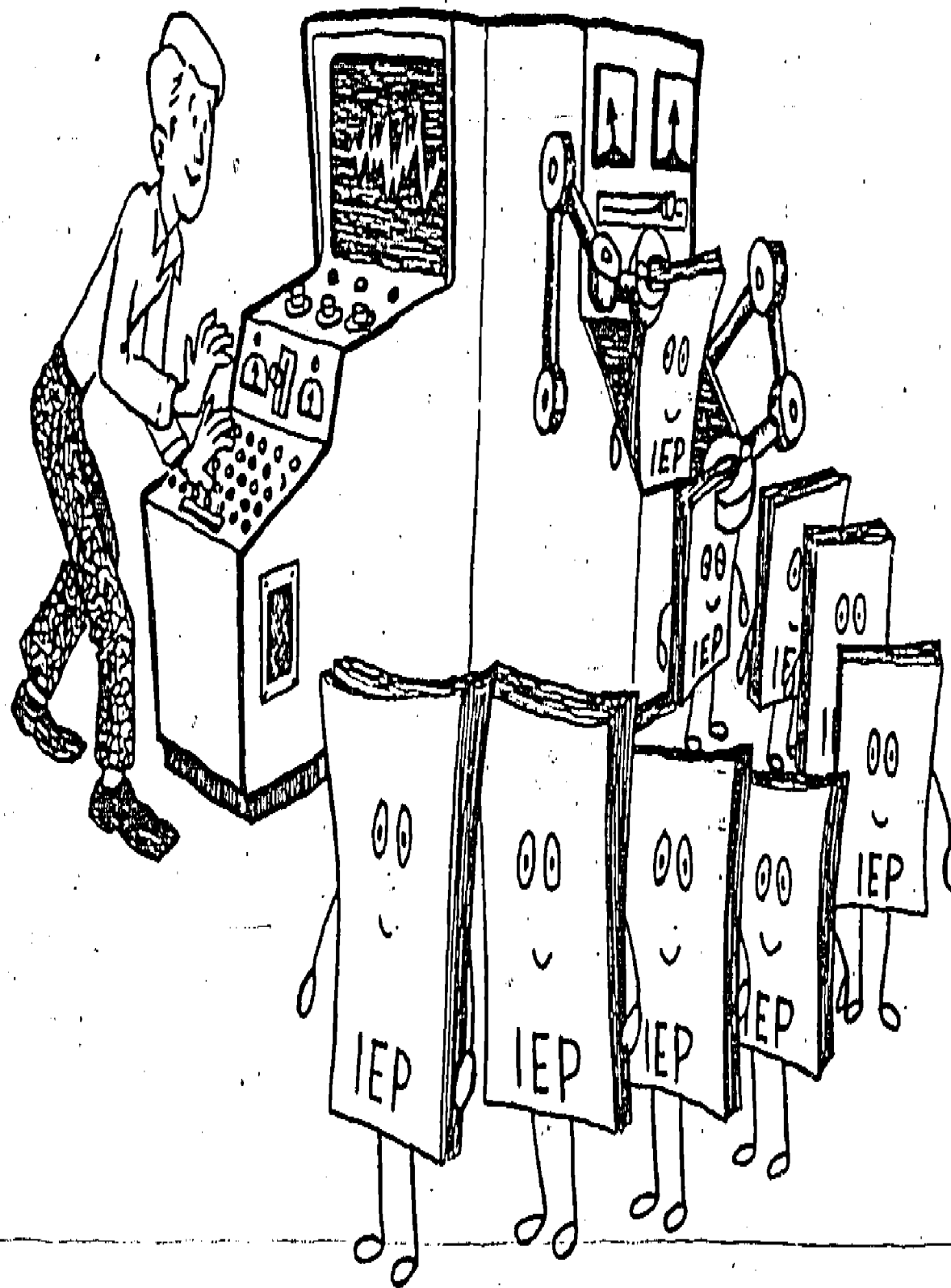
SYSTEM

OF

WHAT ELSE

IS NICE

TO KNOW?



What must you consider to maintain a computer IEP system?

Maintenance of a system includes both equipment maintenance and program modification.

Equipment maintenance costs are usually covered by service agreements and typically run between 10 and 12 percent of the total equipment cost. Maintenance needs to include all equipment used in the system--computer, printer, modem, auxilliary terminals/microcomputers.

Although you initially select or design your computer programs to produce all of the necessary information, changes in state reporting requirements, staff requests and policy changes will occur. Funds need to be allocated for making program modifications to accommodate these changes.

Periodically a review should be made of the methods used to gather information and document the IEP. This review should check on the forms themselves, the process used to handle forms, the uses made of the information collected and user suggestions for improvements.

Staff to assist with data entry will be required, and additional help may be needed at first to transfer existing information into the computer.

Be sure to budget for facilities expenditures such as furniture to hold equipment, storage for materials, electrical wiring for power, installation of direct phone lines and security measures.

What should you do when a system is first installed?

Terminal tables need to be lower than desk height, much as typing tables. Printers require adequate storage space for the paper that will be used and for the handling of printed output. Storage needs to be arranged for all materials used in the system, including computer tapes and/or disks, paper, printer ribbons, etc.

Materials received for data entry need to be secured before and after data entry. Storage files may be needed if IEP copies are being kept in a central location. As materials are received for data entry they should be logged with a date stamp. Depending upon turnaround time, they may also need to have a "data entered" date stamp.

Some type of backup system needs to be maintained on a regular basis--such as a duplicate copy on tape of the information stored in the computer. Such backup is essential to preserve the system in case of equipment failure or natural disaster.

How can you develop management reports?

Although some IEP computer programs do not include any provisions for management reports, most of the IEP programs produce some administrative reports. These are some of the management report areas which you might consider when designing/selecting a system:

- . Class lists . IEP objectives
- . Attendance registers. Due process reminders
- . Test score reports . Staff information
- . District tracking . Historical records
- . Bus-route lists . Emergency/medical data

To have the most freedom in report design, a data management program needs to be part of the initial plan. In this way, information which is included in the IEP is also available for management reports. Just because the information has been entered and is used in the IEP does not mean that it can be automatically available for other reports.

~~Some computer programs allow directors more flexibility~~ in specifying information to be reported. These programs have data base management capability in their design. Other systems require separate programs to prepare management reports.

How can student information be kept confidential?

Users of computerized IEP systems do not find any difficulties in maintaining confidentiality. Information used as input to the IEP is usually prepared in coded form and thus is less likely to be understood. Those responsible for data entry are directed to treat confidential information appropriately. The IEPs themselves are stored in locked files when not in use by the teacher.

Computer systems have varying degrees of protection for those entering and retrieving information. In most cases, appropriate passwords or identifications are required in order to have access to the system. Even with such passwords, access to individual student records usually requires using a special coded student number, although some systems can be accessed by name.

Systems using centralized data entry have more control over data access than systems which use terminals in many locations that are linked to a central computer. Yet even this multiple access can be restricted--allowing district level personnel access to all student records, but allowing school personnel access only to students at their school.

SECTION 6:

FURTHER

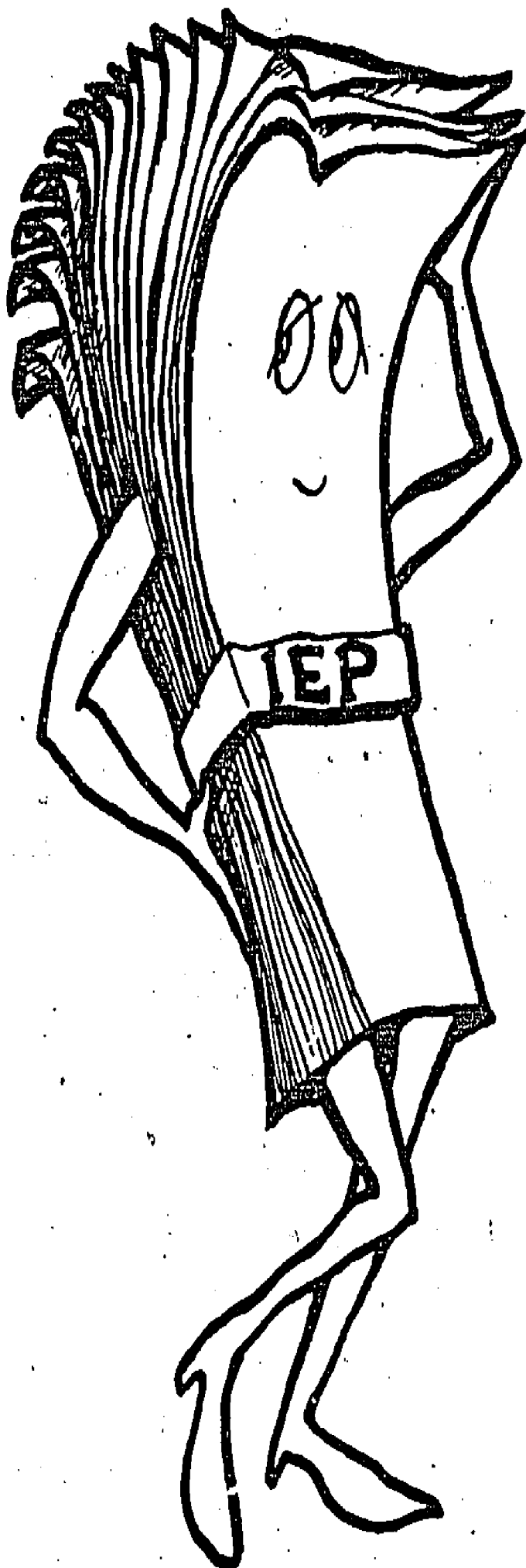
INFORMATION

on

STREAMLINING

YOUR

IEP



Use these questions to judge any IEP process.

Questions you should
ask about your IEP
(whether computer-
assisted or not)

- . Is all of the language easily understood by a parent unfamiliar with special education?
- . Is there a logical relationship between the parts of the IEP--levels of performance, goals and objectives, instruction and services?
- . Does the order in which the IEP parts are presented follow the process used in the meeting?
- . Do the parents feel involved in the development of the IEP--even when suggested objectives or a proposed copy of the IEP are used?
- . Do the statements used in the IEP have the ability to vary with the needs of the individual?
- . Is the statement of special education and services to be provided clear and explicit--not just a naming of programs by the letters?
- . Are parents given an opportunity to act as decision-makers at the IEP team meeting--not just as those who give or deny consent?

Where can you get
further information
on computer-assisted
IEPs?

The complete report of the study An Examination of the Relative Efficiency and Usefulness of Computer-Assisted Individualized Education Programs will be available through ERIC. The study analyzes current practices in eight California districts or planning agencies to produce IEPs with and without computer assistance. The report includes parent and teacher perceptions about the usefulness of IEPs and their reactions to the use of computer-assisted IEPs.

The report includes information and a summary analysis of thirty programs in use for producing all or part of an IEP. The information includes (where available) the system name, address, contact name and phone number, a brief description of the program/system, a list of available materials and costs, and the equipment used.

The research study report is available for \$5 and additional copies of this handbook are available for \$2. Please send check or purchase order made out to:

San Juan Unified School District
Attention: Dr. Nancy C. Enell
Research and Evaluation Department
P. O. Box 477 Carmichael, CA 95608